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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,857	10/10/2004	YING-FANG LIN	ACMP0194USA	5856
27765	7590	08/28/2006	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION				DO, ROBERT C
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MERRIFIELD, VA 22116				
				ART UNIT
				PAPER NUMBER
				2851

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/711,857	LIN, YING-FANG	
	Examiner Robert C. Do	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 October 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 2-6 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 7-15 is/are rejected.
- 7) Claim(s) 16 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10/10/2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                         |                                                                             |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.                                               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                         | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### ***Election/Restrictions***

Applicant's election of Species VII in the reply filed on August 7, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Applicant elected Species VII (Fig. 7). Applicant further stated that all (Claims 1 – 16) are pertaining to Fig. 7. Examiner respectfully disagrees and believes claims 2 through 6 are not part of elected species because they are missing the folding mirror that is an integral part of species VII. Claim 2 through 6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Iizuka (U.S. 6,113,240, referred as Iizuka'240).

Iizuka'240 teaches the following claimed elements:

- Illumination optics (Fig. 1, 2a, 2b, 2c, 2d, and 4) for providing light beams.

- A light modulating apparatus (3) for receiving and modulating the light beams.
- A projection lens (6) for projecting an image.
- A first adjusting device (20) for adjusting a position of the illumination optics.
- A second adjusting device (10) for adjusting a position of the illumination optics.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6-10,13,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka'240 in view of Iizuka (U.S. 6,264,333, referred as Iizuka'333).

Regarding Claim 7: Iizuka'240 teaches the claimed elements shown above.

Iizuka'240 does not teach:

- A folding mirror for reflecting light beams.

Iizuka'333 does teach:

- A folding mirror for reflecting light beams (Fig. 5, 70, The reflector 70 is folding the light incident upon it, therefore acting as a folding mirror).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the folding mirror of Iizuka'333 to the projection system of Iizuka'240 in order to adjust the side in which the light source may be at in order to make the projector more compact. (Column 4, lines 6 – 15)

Regarding Claims 6, 8, 9: Iizuka'240 teaches the claimed elements shown above.

Iizuka'240 does not teach:

- The first adjusting device adjusting the position of the folding mirror at the same time as the second adjusting device adjust the position of the projection lens.
- A third adjusting device for adjusting a position of the illumination optics at the same time as the first and second adjusting devices adjust the positions of the folding mirror and the projection lens.

Iizuka'333 does teach:

- The first adjusting device adjusting the position of the folding mirror at the same time as the second adjusting device adjust the position of the projection lens. (Iizuka'240 shows that it is preferable that the movable members are linked in order to simplify the adjusting operation, therefore it is believed that if a folding mirror is added to move the light source to the same side as the light modulation device, that the folding mirror would be

linked to the other movable members to keep the adjusting operation simple.)

- A third adjusting device for adjusting a position of the illumination optics at the same time as the first and second adjusting devices adjust the positions of the folding mirror and the projection lens. (Iizuka'240 shows that it is preferable that the movable members are linked in order to simplify the adjusting operation, therefore it is believed that if a folding mirror is added to move the light source to the same side as the light modulation device, that the folding mirror would be linked to the other movable members to keep the adjusting operation simple.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the folding mirror of Iizuka'333 to the projection system of Iizuka'240 in order to adjust the side in which the light source may be at.

(Column 4, lines 6 – 15)

Regarding Claim 10: Iizuka'240 teaches the claimed elements shown above.

Iizuka'240 does not teach:

- The illumination optics comprises a concave mirror.

Iizuka'333 does teach:

- The illumination optics comprises a concave mirror (Fig 5, 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a concave mirror taught in Iizuka'240 in the

illumination optics of Iizuka'333 for reflecting and collection the light emitted from the emitter.

Regarding Claim 13 and 15: Iizuka'240 teaches the following claimed elements.

- Illumination optics (Fig. 1, 2a, 2b, 2c, 2d, and 4).
- A method for adjusting position of the projects lens and at least one of the folding mirror and the illumination optics. (Column 2, lines 47 – 53, The lens of the illumination optics and the projection lens are being moved.)
- A method where the positions of the projection lens and the folding mirror or illumination optics are adjusted simultaneously. (Column 2, lines 47 – 53, The reference states that it is preferred that the adjustable parts are linked together therefore moving simultaneously.)

Iizuka'240 does not teach:

- A folding mirror for reflecting light beams.

Iizuka'333 does teach:

- A folding mirror for reflecting light beams (Fig. 5, 70).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the folding mirror of Iizuka'333 to the projection system of Iizuka'240 in order to adjust the side in which the light source may be at. (Column 4, lines 6 – 15)

Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka'240 in view of Iizuka'333 further in view of Tejima et al. (U.S. Patent Number 5,283,599)

Regarding Claim 11: Iizuka'240 and Iizuka'333 teach the claimed elements shown above.

Iizuka'240 and Iizuka'333 do not teach:

- The illumination optics comprises an aspherical lens.

However, Tejima et al. teaches:

- The illumination optics comprises an aspherical lens (Column 4, lines 6 – 8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an aspherical lens as a Condenser lens as taught by Tejima et al. for the purpose of overlapping images (Column 4 lines 13 – 15).

Regarding Claim 14: Iizuka'240 and Iizuka'333 teach the claimed elements shown above.

Iizuka'240 and Iizuka'333 do not teach:

- The illumination optics comprises an aspherical lens.
- The method of wherein the illumination optics comprises a concave mirror and an aspherical lens and the method comprises adjusting the position of the projection lens and at least one of the folding mirror, concave mirror, and aspherical lens.

However, Tejima et al. teaches:

- The illumination optics comprises an aspherical lens (Column 4, lines 6 – 8).
- The method of wherein the illumination optics comprises a concave mirror and an aspherical lens and the method comprises adjusting the position of the projection lens and at least one of the folding mirror, concave mirror, and aspherical lens. (Iizuka'240 shows that it is preferable that the movable members, the projection lens and the condenser lens, are linked in order to simplify the adjusting operation. Then if the condenser lens is an aspherical lens as taught by Tenjima, then the the projection lens and aspherical lens are moved simultaneously)

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an Aspherical lens as a Condenser lens as taught by Tejima et al. for the purpose of overlapping images (Column 4 lines 13 – 15).

### ***Claim Objections***

### ***Allowable Subject Matter***

Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The method where all the components of projection lens, concave mirror, aspherical lens and folding mirror are all adjusted simultaneously are not shown in the references.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Do whose telephone number is (571)272-1387. The examiner can normally be reached on Monday Through Friday, 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571)272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RCD



DIANE LEE  
SUPERVISORY PATENT EXAMINER